

CLAIMS

1. A vacuum deposition method for evaporating a sublimation evaporation material, comprising the steps of:

preparing a gas sealed-type heating container having a blast aperture;

holding said evaporation material in an area where said evaporation material does not evaporate due to heat conduction from said gas sealed heating container;

evaporating said evaporation material held in said area by radiation heat from said heating container; and

emitting the resultant vapor from said aperture toward a deposition subject surface outside said heating container.

2. The vacuum deposition method as defined in Claim 1, wherein said heating container has a supply aperture in an area where said evaporation material does not evaporate due to the heat conducted from said heating container; wherein said evaporation material supplied from said supply aperture is held in the area where said evaporation material does not evaporate due to the heat conducted from said heating container; and wherein said evaporation material to be supplied and held is held in an evaporation area subjected to said radiation heat, so as to face in a contact-less state a heating surface at an evaporable temperature within said heating container.

3. The vacuum deposition method as defined in Claim 2, wherein said evaporation material is in a powdered grain state and is supplied from a supply aperture formed in said heating container; and wherein said evaporation material to be supplied is held in an evaporation area subjected to said radiation heat, so as to confront in a contactless state

said heating surface at an evaporable temperature within said heating container.

4. The vacuum deposition method as defined in Claim 3, wherein vapor of said evaporation material produced due to a radiation heat from a heating surface of said heating container performs a thermal disturbance motion in a space within said heating container while part of said vapor is re-solidified onto the surface of said evaporation material, thus being maintained to a solid phase in a predetermined state.

5. The vacuum deposition method as defined in Claim 2, wherein said evaporation material is a molded compact and is supplied from a supply aperture formed in said heating container; and wherein an evaporation material to be supplied is held in an evaporation area subjected to said radiation heat so as to confront in a contact-less state said heating surface in said heating container, which is at an evaporable temperature.

6. The vacuum deposition method as defined in Claim 3 or 5, wherein the gas sealing property of said supply aperture formed in said heat container is maintained by said powdered grain evaporation material or said molded compact evaporation material, supplied via said supply aperture.

7. The vacuum deposition method as defined in any one of Claims 2, 3 and 5, wherein the gas sealing property of said supply aperture formed in said heat container is maintained by a solid state phase of said vapor partially re-solidified.

8. The vacuum deposition method as defined in Claim 3, wherein said powdered grain evaporation material is supplied to said supply aperture as said emission of said evaporation material reduces in said

heating container.

9. A sealed-type evaporation source apparatus for vacuum deposition of a sublimation evaporation material comprising:

 a gas sealed heating container having a blast aperture and having an area vaporizing said evaporation material with a radiation heat from an inner surface thereof; and

 a holder for holding said evaporation material in an area where said evaporation material does not evaporate with a conduction heat from said heating container;

 whereby said blast aperture emits the generated vapor toward an evaporation subject surface outside said container.

10. The sealed-type evaporation source apparatus for vacuum deposition as defined in Claim 9, wherein said heating container has a supply aperture for evaporation material in an area where said evaporation material does not evaporate by a conduction heat from said heating container; wherein said evaporation material to be supplied from said supply aperture is held in an area where said evaporation material does not evaporate by a conduction heat from said heating container; and wherein said evaporation material to be supplied and held is held in an evaporation area subjected to said radiation heat, so as to confront in a contactless state a heating surface at an evaporable temperature in said heating container.

11. The sealed-type evaporation source apparatus for vacuum deposition as defined in Claim 10, wherein said evaporation material is in a powdered grain state and is supplied from a supply aperture formed in said heating container; and wherein said evaporation material to be supplied is held in an area subject to said radioactive heat, so as to

confront in a contactless state said heating surface at an evaporable temperature in said heating container.

12. The sealed-type evaporation source apparatus for vacuum deposition as defined in Claim 10, wherein said evaporation material is a molded compact and is supplied from a supply aperture formed in said heating container; and wherein said evaporation material is held in an evaporation area subject to said radiation heat so as to confront in contactless state said heating surface of said heating container, which is at an evaporable temperature.

13. The sealed-type evaporation source apparatus for vacuum deposition as defined in any one of Claims 9 to 10, wherein said evaporation material supply aperture and said holder are disposed in the position where said evaporation material does not evaporate due to a conduction heat from said heating container.

14. The sealed-type evaporation source apparatus for vacuum deposition as defined in any one of Claims 10 to 12, wherein the gas sealing property of said supply aperture formed in said heat container is maintained due to said powdered gain evaporation material or said molded compact evaporation material, supplied via said supply aperture.

15. The sealed-type evaporation source apparatus for vacuum deposition as defined in any one of Claims 10 to 12, wherein the gas sealing property of said supply aperture formed in said heat container is maintained by a solid state phase of said vapor partially re-deposited.

16. The sealed-type evaporation source apparatus for vacuum deposition as defined in Claim 11, wherein said powdered grain evaporation material is supplied to said supply aperture as the emission of said evaporation material reduces in said heating container.